

jQuery UI Part 2: Dialog Boxes

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For customized training related to JavaScript or Java, email hall@coreservlets.com
Marty is also available for consulting and development support

Taught by lead author of *Core Servlets & JSP*,
co-author of *Core JSF* (4th Ed), and this tutorial.

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Topics in This Section

- **Overview and usage**
- **Basic dialog boxes**
- **Dialogs with animation**
- **Modal dialogs**
- **Modal dialogs with buttons**
- **Dialogs with Ajax content**

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Dialog: Overview

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Overview

- **Idea**

- A popup window (really a div with absolute positioning) that contains arbitrary HTML. One of the single most commonly used rich elements in modern Web apps.

- **HTML**

- Make an initially-hidden div with content inside.
- Use the title attribute of div for title of dialog.

```
<div id="some-id" title="Title" style="display: none">  
  ...  
</div>
```

- **Basic JavaScript**

- Call dialog() on element
 `$("#some-id").dialog();`
 - Many options

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Key Dialog Options (But Many More Available)

- **Animation**

- show, hide: let you specify name of animation effect
 - See <http://api.jqueryui.com/category/effects/>

- **Dialog type**

- modal: gray out window, make controls disabled
- buttons: lets you specify buttons for dialog
- draggable, resizable: (default true for both)

- **Sizing and positioning**

- Size
 - height, width, minHeight, minWidth, maxHeight, maxWidth
- Position
 - position, zIndex

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Usage

- **Replace separate pages**

- For almost anything that is short, you should consider using a dialog box instead of a separate HTML page

- **Examples**

- Login
 - Click login button, dialog with input form pops up
- Show large pictures for thumbnails
 - Click thumbnail, dialog with image pops up. Widely used in online stores for seeing larger version of item for sale.
- General info
 - Pop up shipping rates, address, sizing chart, etc.
- Hard-to-block ads
 - Use dialogs for ads instead of popup windows. Difficult for popup blocker to stop, since they are really divs in the current page.

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Basic Dialogs

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Overview

- **Big idea**

- When button pressed, style hidden div as a dialog box and pop it up

- **Core HTML code**

```
<div id="simple-dialog" title="..." style="display:none">
  Dialog content
</div>
```

- **Core JavaScript code**

```
$("#simple-dialog").dialog();
```

- **Note**

- The core code above would usually be part of the button handler. And, you typically style the buttons as in last section.

```
$("#simple-dialog-button")
  .button()
  .click(function() { $("#simple-dialog").dialog(); });
```

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Example: HTML

```
<button id="simple-dialog-button">
  <b>Simple</b> Dialog
</button>
...
<div id="simple-dialog" title="A jQuery UI Dialog"
  style="display: none">
  <p>This is a basic dialog.</p>
  <p style="color: blue">It can contain normal HTML</p>
</div>
```

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Example: JavaScript

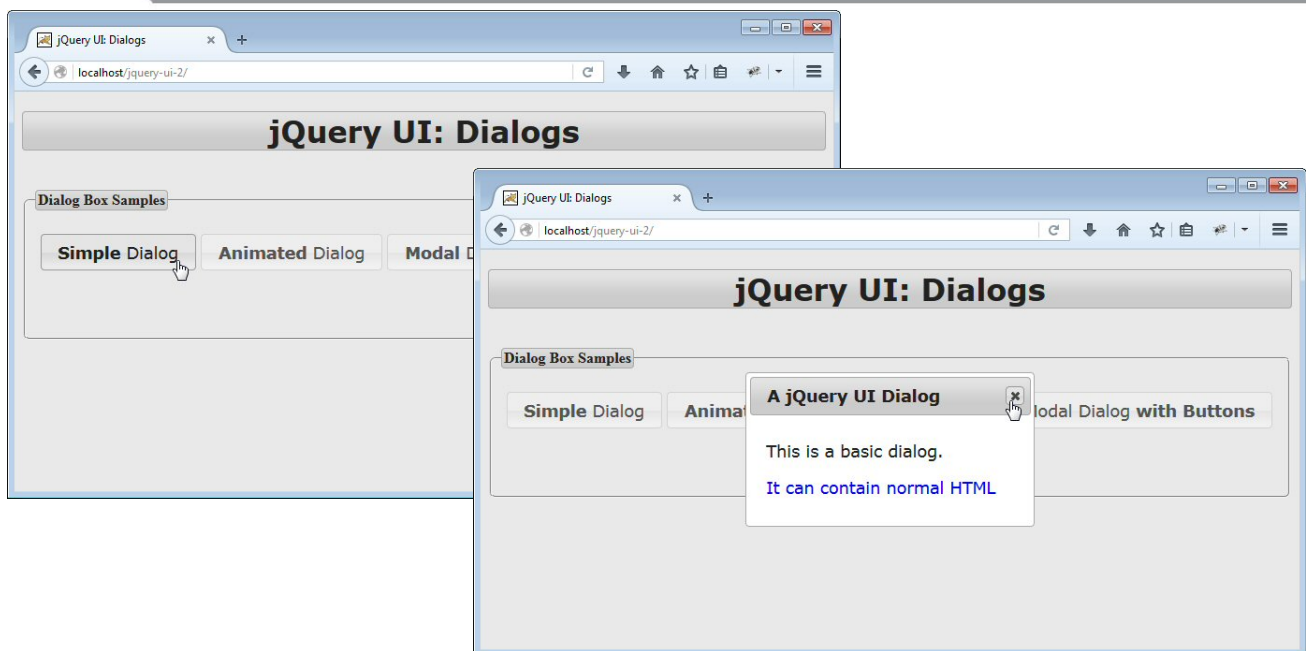
```
$(function() {  
    $("#simple-dialog-button")  
        .button()  
        .click(function() { $("#simple-dialog").dialog(); });  
    ...  
});
```

Style the button for the current theme.
This is optional, but common.
Discussed in previous section.

When you press the button, pop
up the dialog box defined by the
div on the previous slide.

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Example: Results



Animated Dialogs

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Overview

- **Big idea**

- Pop up dialog, but use one of the standard jQuery UI animation effects.

- **Core HTML code**

```
<div id="..." title="..." style="display: none">...</div>
```

- (Same as before)

- **Core JavaScript code**

```
$("#some-id").dialog({ show: { effect: "..." ... },  
                       close: { effect: "..." ... } });
```

- The values for show and close contain the name of an effect and optionally effect options like duration.

```
show: { effect: "blind" }
```

```
close: { effect: "explode", duration: 1000 }
```

- For names of all effects and details of options, see <http://api.jqueryui.com/category/effects/>
- Use animations lightly in most business apps

Example: HTML

```
<button id="animation-dialog-button">
  <b>Animated</b> Dialog
</button>
...
<div id="animation-dialog" title="Animated Dialog"
  style="display: none">
  <p>This is also a simple dialog. However, open/close
  animation effects are specified when the dialog
  is created.</p>
</div>
```

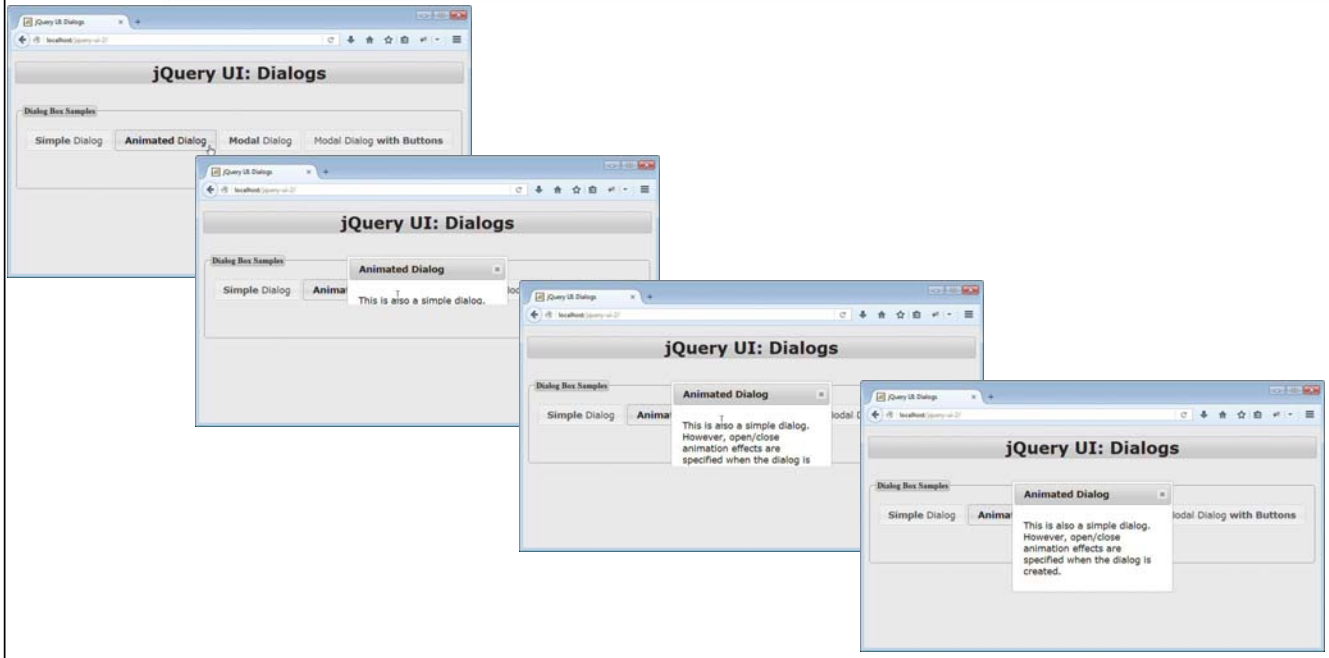
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Example: JavaScript

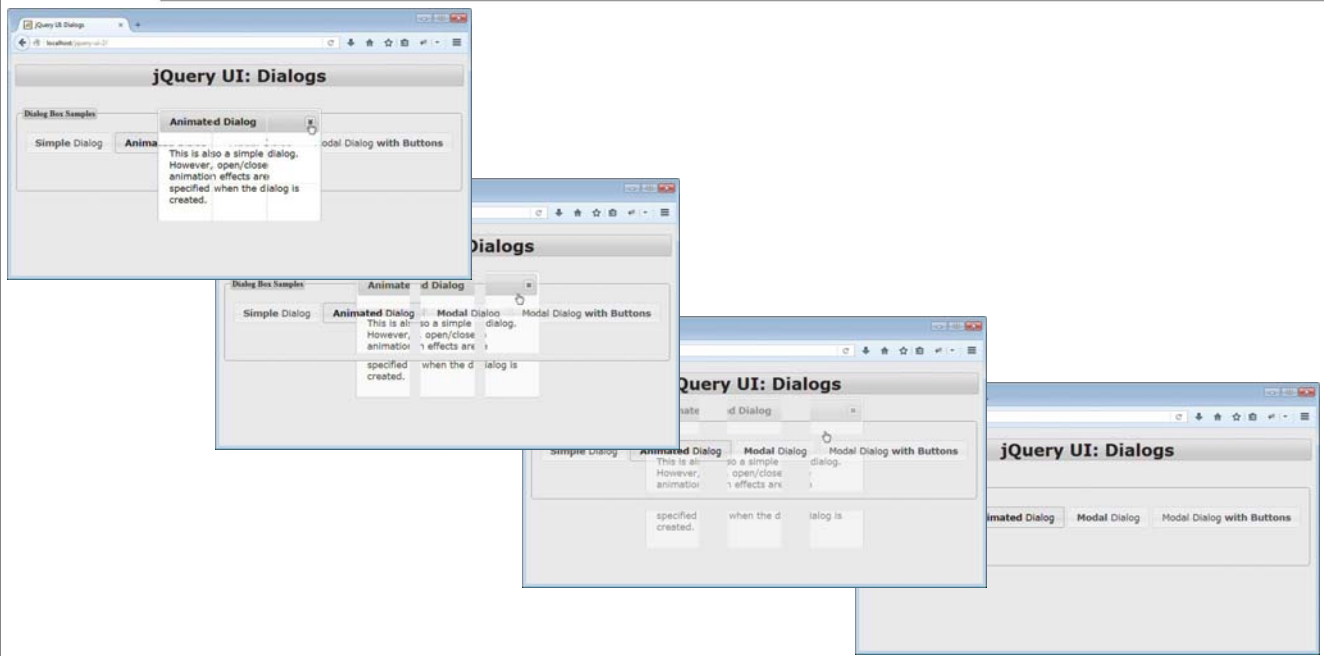
```
$(function() {
  $("#animation-dialog-button")
    .button()
    .click(function() {
      $("#animation-dialog")
        .dialog({
          show: { effect: "blind",
                 duration: 2000 },
          hide: { effect: "explode",
                 duration: 1000 } });
    });
  ...
});
```

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Example: Results (Opening)



Example: Results (Closing)



Modal Dialogs

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Overview

- **Big idea**

- Pop up dialog when button pressed, but make dialog be modal
 - Main window grayed out
 - User cannot interact with elements in main page until dialog is closed

- **Core HTML code**

```
<div id="..." title="..." style="display: none">...</div>
```

- (Same as before)

- **Core JavaScript code**

```
$("#some-id").dialog({ modal: true });
```

Example: HTML

```
<button id="modal-dialog-button-1">
  <b>Modal</b> Dialog
</button>
...
<div id="modal-dialog-1" title="Modal Dialog"
  style="display: none">
  <p>This is a modal dialog.</p>
</div>
```

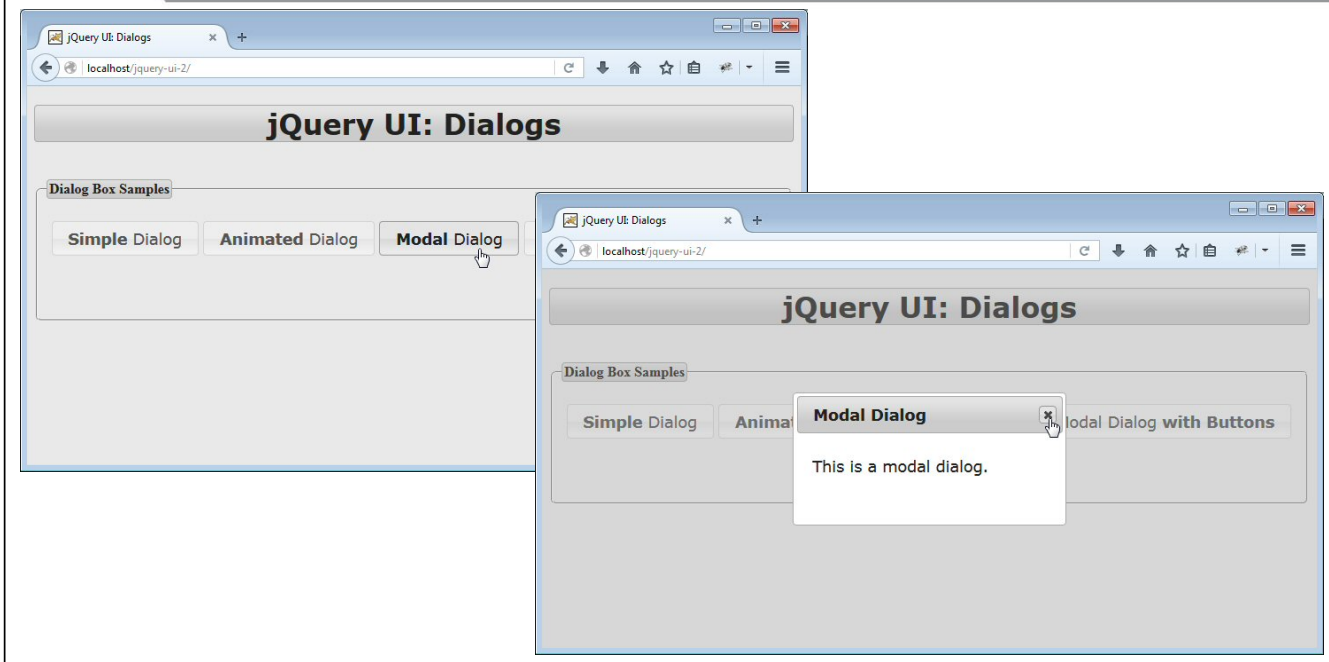
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Example: JavaScript

```
$(function() {
  $("#modal-dialog-button-1")
    .button()
    .click(function() {
      $("#modal-dialog-1")
        .dialog({ modal: true });
    });
  ...
});
```

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Example: Results



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Modal Dialogs with Buttons

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Overview

- **Big idea**

- Pop up modal dialog. Include buttons that allow further actions.

- **Core HTML code**

```
<div id="..." title="..." style="display: none">...</div>
```

- (Same as before)

- **Core JavaScript code**

```
$("#some-id").dialog({ modal: true,  
                      buttons: { "label1": function1,  
                                "label2": function2 }    });
```

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Details on :buttons

- **Motivation**

- You could implement this approach yourself in a normal dialog, once you know that calling `$(this).dialog("close")` from event triggered in dialog will close the dialog. But the `buttons:` shortcut simplifies this and uses a style that can be modified by current theme.

- **Syntax**

```
buttons: { "button-label-1": buttonFunction1,  
          "button-label-2": buttonFunction2,  
          "button-label-3": buttonFunction3, ... }
```

- The button functions can do arbitrary tasks, but they should end by doing `$(this).dialog("close");`

- **Icons**

- You can include icons by using a span in the main HTML content like this:
 - ``
- A complete list of icons and more info on their use in jQuery UI can be found at <http://api.jqueryui.com/theming/icons/>

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Example: HTML

```
<button id="modal-dialog-button-2">
  Modal Dialog <b>with Buttons</b>
</button>
...
<div id="modal-dialog-2" title="Modal Dialog with Buttons"
  style="display: none">
  <p>
    <span class="ui-icon ui-icon-alert"
      style="float:left; margin:0 7px 20px 0"></span>
    All your important files will be deleted forever.
  </p>
</div>
```

Notice that there are no explicit buttons in the HTML for the dialog box, but there is an alert icon.

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Example: Dummy Functions

```
var uiDemo = {}; // To avoid name conflicts

uiDemo.formatHardDrive = function() {
  // Blah
}

uiDemo.cancelFormat = function() {
  // Blah
}
```

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Example: Button Functions

```
uiDemo.nukeEm = function() {  
    uiDemo.formatHardDrive();  
    $(this).dialog("close");  
}  
  
uiDemo.neverMind = function() {  
    uiDemo.cancelFormat();  
    $(this).dialog("close");  
}
```

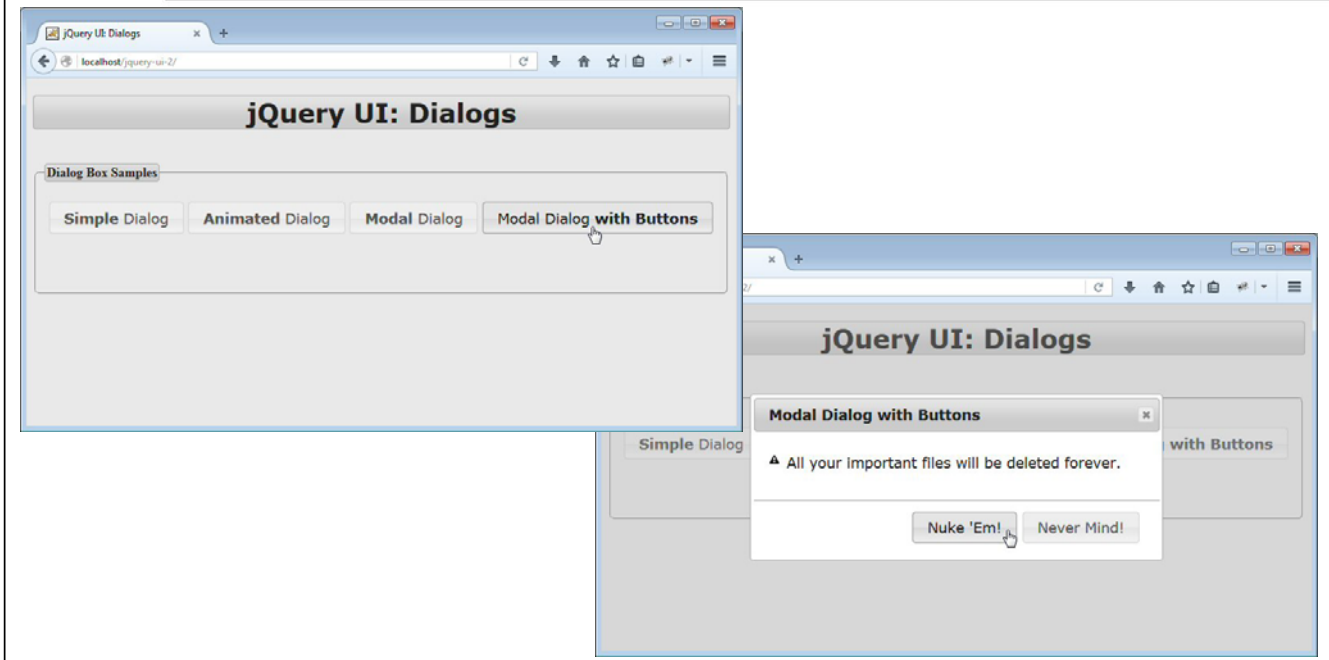
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Example: Core JavaScript

```
$(function() {  
    $("#modal-dialog-button-2")  
        .button()  
        .click(function() {  
            $("#modal-dialog-2")  
                .dialog({  
                    modal: true,  
                    width: 500,  
                    buttons: { "Nuke 'Em!": uiDemo.nukeEm,  
                              "Never Mind!": uiDemo.neverMind }  
                });  
        });  
    ...  
});
```

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Example: Results



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Dialogs with Ajax Content

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Overview

- **Big idea**

- Button makes Ajax request.
- Handler function inserts result into content of the div, then pops up the dialog box

- **Core HTML code**

```
<div id="id-of-div" title="..." style="display: none">
  ...<span id="id-inside-div"></span></div>
```

- (Same as before, but with span or other element inside div that has an id)

- **Core JavaScript code**

```
$("#button-id").button().click(ajaxFunction);
function ajaxFunction(text) {
  $("#id-inside-div").load("some-address");
  $("#id-of-div").dialog();
}
```

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Example: HTML

```
<fieldset>
<legend>Ajax Dialog</legend>
<button id="ajax-dialog-button">Show Lucky Number</button>
<div id="ajax-dialog" title="Your Lucky Number"
  style="display: none">
  Your number is <span id="number-result"></span>
</div>
</fieldset>
```

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Example: Core JavaScript

```
$(function() {  
    $("#ajax-dialog-button").button().click(uiDemo.showNumber);  
    ...  
});  
  
uiDemo.showNumber = function(num) {  
    $("#number-result").load("random-num.jsp");  
    $("#ajax-dialog").dialog();  
}
```

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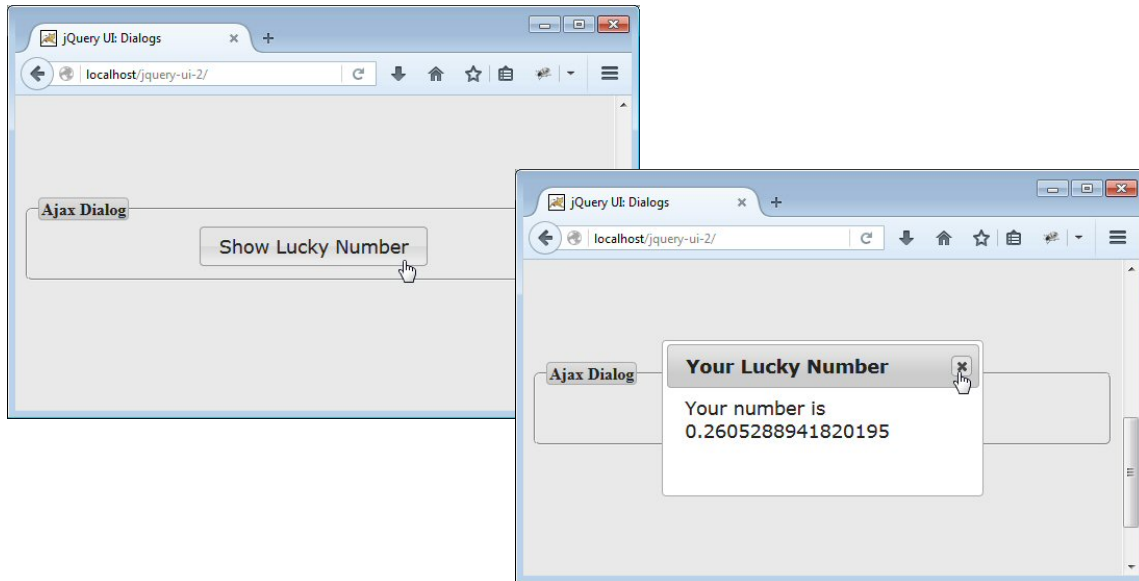
Example: JSP

```
<%= Math.random() %>
```

This is the same JSP used several times in the sections on Ajax with jQuery.
On each request, it outputs a new random number between 0 and 1.

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Example: Results



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Wrap-up

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Summary

- **HTML**

- Make div with an id and style="display: none"

- **JavaScript**

- Basic dialogs

```
$("#div-id").dialog();
```

- Dialogs with animation

```
$("#div-id").dialog({ show: { ... }, close: { ... } });
```

- Modal dialogs

```
$("#div-id").dialog({ modal: true });
```

- Modal dialogs with buttons

```
$("#div-id").dialog({ modal: true,  
    buttons: { "label1": function1,  
              "label2": function2 } });
```

- Button functions should end by doing `$(this).dialog("close");`

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Questions?

More info:

<http://www.coreservlets.com/javascript-jquery-tutorial/> – Tutorial on JavaScript, jQuery, and jQuery UI

<http://courses.coreservlets.com/Course-Materials/java.html> – General Java programming tutorial

<http://www.coreservlets.com/java-8-tutorial/> – Java 8 tutorial

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